

## **ABSTRACT**

This invention provides a method for reducing phosphorous in a body of water. This method comprises calcining a plurality of rocks and collecting carbon dioxide formed as a result of the calcining process; crushing the plurality of calcined rocks; pumping source water from the body of water into to a plurality of retaining cells; flocculating the phosphorus in the source water by introducing the plurality of calcined rocks into the source water in the retaining cells; settling out a phosphorous precipitate formed by the flocculating act; adjusting the pH level of the flocculated source water to a predetermined range of values by pumping carbon dioxide created by the calcining of the rocks into the source water to create treated water; and transferring the treated water back to the body of water.